Delaware
Economic Development Office dedo.delaware.gov
Innovation@work.

Aqueous coating composition and its use to produce filler coats

Description of Technology: The invention relates to coating compositions based on aqueous epoxy/amine systems which exhibit very good sandability. The invention also relates to the use of the coating compositions as fillers in multi-coat lacquering, particularly in the field of vehicle and vehicle component lacquering.

Patent Listing:

1. **US Patent No.** 5,906,864, May 25, 1999, "Aqueous coating composition and its use to produce filler coats."

http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=2&f=G&l=50&co1=AND&d=PTXT&s1=5,906,864&OS=5,906,864&RS=5,906,864

Market Potential: Aqueous systems for coating objects are gaining in importance because environmental protection conditions are becoming increasingly stringent. Their properties must be comparable with conventional systems, i.e. ones which contain solvents. Of the cold-curing coating compositions, water-dilutable epoxy resin systems have increasingly gained in importance. These two-component (2C) systems have excellent properties, such as good drying and rapid complete curing, very good adhesion to most substrates, very good inter-layer adhesion, good corrosion protection of metals.

The disadvantage of the known aqueous epoxy/amine systems is that coating compositions produced from them exhibit unsatisfactory sandability, particularly in the dry state. On the one hand the coatings obtained are so hard that when sanding, it is very time-consuming to achieve sufficient material removal and/or sanding is not possible at all. On the other hand there are aqueous epoxy/amine systems which soften quickly when being sanded because of their marked thermoplasticity and soon block up the sandpaper.

Benefits:

- Very good sandability.

Applications:

- Vehicle and vehicle component lacquering.

Contact:
Delaware Economic Development Office
Direct: (302) 577-8477, Fax: (302) 577-8499